CALFED Bay-Delta Program Project Information Form
Watershed Program – Full Proposal Cover Sheet

1. Full Proposal Title: Cherokee Watershed Organizational Capacity and Citizen Monitoring Project
   Concept Proposal Title: Cherokee Watershed Organizational Capacity and Citizen Monitoring Project

   Applicant Name: Cherokee Coordinated Resource Management and Planning Group (CRMP)
   Applicant Name: Gary Cole, Director
   Applicant Mailing Address: 7399 Highway 99, Oroville, CA 95965
   Telephone: (530) 343-0916 Fax: (530) 894-7829 E-mail: colefarm@shocking.com

   Fiscal Agent Name: Ed Craddock, Director, Butte County Department of Water and Resource Conservation
   Mailing Address: 2279 Del Oro Avenue, Suite A, Oroville, CA 95965-3396
   Telephone: (530) 538-3804Fax: (530) 538-3807 E-mail: ecraddock@buttecounty.net

2. Type of Project: Capacity Building

3. Type of Applicant: Joint Venture (primary partners include a non-501©3 CRMP, a County agency, an academic institution, and a 501©3 regional environmental group)

4. Location: The Cherokee Watershed is in Butte County within the Sacramento River Watershed

5. Amount of funding requested: $93,815
   Cost share/in-kind partners: Yes
   Identify contributing partners and amount contributed by each:
   Cherokee Watershed Group Citizen Monitors: $4,540
   Sierra Nevada Alliance: $1,000

6. Have you received funding from CALFED before? No

By signing below, the applicant declares the following:

1. The truthfulness of all representations in their proposal
2. The individual signing this form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or an organization)
3. The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the Watershed Program Proposal Solicitation Package and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent provided in the Proposal Solicitation Package.

Gary Cole, Director **Ed_Craddock, Butte County Water and Resource Conservation**

_____ _____

Signature **Signature**

Project Abstract:

Concerned local community members have gathered together to address severe flooding, sedimentation and heavy metal contamination issues in the Cherokee Watershed (HUC 18020105) in Butte County. The objective of this project is to provide this dynamic new group with the resources necessary to build a formal, broad-based, collaborative stakeholder watershed organization capable of performing watershed assessments and ongoing monitoring, developing a watershed plan, and implementing stewardship activities. During this 21-month capacity-building initiative the group will perform outreach; promote awareness, dialogue and shared understanding through watershed meetings and tours; develop a formal collaborative process and Memorandum Of Understanding through organizational meetings; perform Citizen Monitoring to collect base-line data and investigate concerns about heavy metal contamination; synthesize existing studies and data into a reference document for planning; and engage the public agencies involved in tackling issues in the watershed.

The awareness, communication, understanding, trust, collaborative know-how, data, and reference document produced by this project will allow the new group to effectively establish priorities, gather information, assess, plan, and implement watershed protection and restoration. The benefits for both people and the environment will extend from the Cherokee Watershed to the Bay Delta 100 miles downstream

THE CHEROKEE WATERSHED GROUP HAS MADE THE SWRCB PROJECT PRIORITY LIST FOR A PROP 13 WATERSHED PROTECTION PROGRAM GRANT.

THIS PROPOSAL IS NOT THE SAME! THERE ARE DISTINCT NON-OVERLAPPING PARTS AS DESCRIBED BELOW.

- THIS PROPOSAL PROVIDES FOR A HALF-TIME COORDINATOR.
- THE PROP 13 PROPOSAL CALLS FOR A LESS THAN HALF-TIME COORDINATOR FOR THE PROFESSIONAL MONITORING ELEMENT ONLY.
- THIS PROPOSAL'S COORDINATOR WILL: FACILITATE THE DEVELOPMENT OF A FORMAL ORGANIZATION, PERFORM EXTENSIVE OUTREACH, ENGAGE THE PUBLIC IN THE ARMY CORPS PROJECT, CONDUCT EDUCATIONAL WATERSHED TOURS, AND COMPILE AN EXISTING INFORMATION SUMMARY FOR THE WATERSHED.
- THIS PROPOSAL CALLS FOR A CITIZEN MONITORING PROGRAM TO ENGAGE LOCAL RESIDENTS IN STEWARDSHIP OF THEIR WATERSHED.
- LAB COSTS ARE AN OVERLAP AND $26,300 WOULD NOT BE REQUIRED IN THIS GRANT.

1. Describe your project, its underlying assumptions, expected outcomes, timetable for completion, and general methodology or process.

Project Narrative

This project will build a broad-based, collaborative, stakeholder watershed group capable of performing watershed assessments and ongoing monitoring, of developing a watershed plan, and of implementing stewardship activities in the Cherokee Watershed. An informal group, initiated by the Cherokee CRMP, has been meeting since September 2000. These meetings have focused on issue scoping and increasing awareness and understanding of priority issues such as flood control, non-point source pollution, and endangered species. While participants have identified numerous issues in meetings to date, addressing the legacy of historic hydraulic mining has become the groups most immediate concern. Documented negative impacts of these historic activities include high levels of sedimentation, flooding and heavy metal contamination of soils and groundwater in some areas.

Community watershed meetings, a Citizen Monitoring Initiative, and field tours will be the keystones of this 21-month capacity-building project. Watershed meetings will focus on raising awareness, promoting communication, and getting organized. Participants will gain a greater understanding of problems and work towards solutions in the watershed; develop a shared understanding of watershed issues and needs through dialogue with local community members and agencies; and help craft a formal collaborative organization to maintain and improve the watershed. Meetings will also provide a venue for the Army Corps of Engineers to engage all stakeholders as it plans a project to reduce sedimentation and control flooding in the watershed. Working with the SWRCB Clean Water Team to ensure appropriate sampling protocols, Citizen Monitors will gather water quality samples and data for one year. Field data and results from certified labs will help to answer burning questions about groundwater and surface water quality in a watershed impacted by large scale historic hydraulic mining activities. Watershed tours will provide stakeholders with a greater understanding of watershed problems and processes and the concerns of other stakeholders. Field-based experiential education activities such as citizen monitoring and watershed tours will be far more effective than indoor presentations in motivating people to act to maintain or improve their watersheds.

Concurrent with these events the group will work to assemble existing scientific studies and data for the watershed and compile it into a summary document that identifies additional data needs and serves as a reference for public discussions and individual landowner decisions about the watershed. This proposal will fund a half-time Watershed Coordinator to synthesize existing data sets, coordinate events and Citizen Monitoring, facilitate meetings, manage logistics, conduct outreach activities, and perform other duties such as grant writing or web site development as assigned by the watershed group Steering Committee.

Products: This project will establish a formal collaborative process founded on stakeholder communication and sincere attempts to find mutually acceptable solutions. Through the project local community members will become better informed and will develop a shared understanding of problems and potential solutions in their watershed. Existing data on the watershed will be synthesized in a useable format and important new data will be collected through citizen monitoring efforts. Finally, the watershed group will be well poised and motivated to pursue the next steps of assessment, planning and implementation activities.

Task I: Hire Coordinator and build formal organization

A Formation Committee will be created in the summer of 2001. The committee will include representatives from each of the geographic communities of the Cherokee Watershed who have been regular participants in the informal group. The Formation Committee will oversee the development of a formal watershed group with support from Sierra Nevada Alliance Watershed Program staff. They will hire the new Coordinator, establish documented operating procedures, and assemble a Steering Committee to govern group activities.

I.1 Hire Coordinator: Formation Committee will develop and publicize position announcement, collect resumes and cover letters, interview selected candidates, and choose and hire Coordinator

I.2 Craft Organizational Structure: Coordinator and Formation Committee will facilitate meetings of the whole watershed group. Develop a mission statement to clarify and articulate watershed group values, objectives, and the means that the group will employ. Examine other watershed groups and resources such as the Sierra Nevada Alliance Watershed Toolkit to develop options for organizational structure, membership rules, decision-making rules, etc. Discuss options and select structure and rules.

I.3 Establish Steering Committee: Utilize new policies to assemble Steering Committee to govern group.
I.4 Develop Memorandum of Understanding, By-laws or similar document: Coordinator will develop a formal document describing the mission, structure and rules of the new watershed organization. Drafts will be presented to group for revision and ratification.

Task II: Outreach, Community Watershed Meetings, and Watershed Tours

Formation Committee, Steering Committee and Watershed Coordinator will perform outreach and organize community watershed meetings and watershed tours to engage and educate stakeholders and foster communication and coordination.

II.1 Outreach: Prepare and send out one mass mailing, establish relationships with the local media, and make watershed presentations at the regular meetings of other local organizations. Publicize watershed meetings and tours through press releases and flyers in the community.

II.2 Community Watershed Meetings: With guidance from the Steering Committee the Coordinator will schedule and execute meetings every other month (8 total) to keep stakeholders appraised of important issues and activities in the watershed and to promote dialogue, shared understanding and solutions. Some meeting topics will include: additional issue scoping, updates on the Citizen Monitoring initiative, updates on and input to the Army Corps of Engineers 1135 Ecosystem Restoration project, and key findings of the Existing Data Summary.

II.3 Watershed Tours: Organize and lead two tours of the watershed for interested stakeholders and the public to increase understanding of how the watershed works and cultivate a shared understanding of the system.

Task III: Citizen Monitoring Initiative

Concerned watershed group participants have formed a Water Quality Committee to investigate the existence and extent of heavy metal contamination in the watershed. The Committee will organize Citizen Monitoring of surface and ground waters in the region extending from the historic hydraulic gold mine in Cherokee to Butte Valley, 8 miles downstream. With protocol training and assistance from Dominic Gregorio (SWRCB Clean Water Team) citizens will collect water column, benthic stream bottom, and well samples and send those samples to a certified lab that can test for mercury, arsenic and other metals with low detection limits. Additional parameters such as pH, DO, TDS, TSS and temperature will be monitored simultaneously to provide context for the metal samples. Results will be analyzed by a Technical Advisory Committee and publicized by the group in a final document.

III.1 Conduct Organizational Meetings and Identify Sampling Sites: The Water Quality Committee will invite all interested stakeholders and residents of the monitoring area to a series of meetings to describe the Initiative and solicit volunteers to monitor local streams and/or their personal wells. With stakeholder input the Committee will determine tasks, distribute responsibilities, and establish a time line for the Initiative. Up to 15 well owners who want to test their wells will be able to sign up for training and on-site assistance with collecting groundwater samples at their homes. Surface water and benthic monitoring sites will be selected on Dry Creek, the main stream draining the Cherokee Watershed, and Sawmill Ravine, a tributary which runs through the Cherokee Mine site before joining Dry Creek. The sites will be located on Dry Creek above (#1) and below (#2) the confluence with Sawmill Ravine and on Sawmill Ravine (#3) before it joins Dry Creek. Surface water and bottom samples will be collected from bridge sites and no permissions for access will be needed. The 3 surface water sites and 15 wells will be recorded on a watershed map.

III.2 Prepare Quality Assurance Project Plan: Develop a QAPP describing field sampling and laboratory protocols for the Citizen Monitoring Initiative. The QAPP will be modeled on SWRCB Citizen Monitoring QAPP and will be consistent with the Plan developed by the Sacramento River Watershed Program.

III.3 Create Technical Advisory Committee: Watershed group participants with expertise in water quality sampling, earth sciences, drinking water standards and other relevant fields will be invited to serve on a Technical Advisory Committee. The TAC will include representatives from the Bidwell Institute, RWQCB, other state and local agencies, and knowledgeable citizens. The TAC will help design the monitoring approach, examine the data quarterly as it is produced, and modify monitoring practices as needed.

III.4 Training: Coordinator will work with Dominic Gregorio (SWRCB) to train Citizen Monitors in appropriate surface and ground water and stream bottom sampling protocols.

III.5 Water Quality Monitoring: Trained citizens will conduct regular sampling with Coordinator for 12 months. Surface water samples will be collected monthly, stream bottom samples will be collected every 6 months, and well samples will be collected quarterly. When monitors collect surface water samples they will also measure pH, DO, temperature, TDS,TSS, turbidity, and flow and make visual observations. Well owners will also collect pH, DO, and temperature measurements when they collect groundwater samples. Samples will be shipped to a certified lab to test for mercury, arsenic and other metals of concern using Inductively Coupled Plasma Mass Spectroscopy.

III.6 Analysis and Reporting: The TAC will analyze data quarterly and will interpret the data after all sampling and lab analysis has been completed. Coordinator will work with the TAC to prepare the final report. Water Quality Committee will report findings to the broader watershed group and distribute the final report at the meeting.

Task IV: Existing Data Summary

Coordinator will gather and integrate existing information on present and historic conditions within the watershed in the following topic areas: hydrologic regime, soil and vegetation cover, sediment regime, water quality conditions, terrestrial and aquatic habitat, land use and ownership, fluvial geomorphology, and riparian community. Summary report will be compiled and data gaps will be identified.

IV.1 Gather all relevant existing studies and data, soliciting all stakeholders for suggestions on information sources.

IV.2 Analyze and synthesize information. Draft and revise summary report with review by interested stakeholders, especially agency representatives to the group.

IV.3 Produce 50 CD-ROM and 25 printed copies of the Existing Data Summary for distribution. Present key findings in regular watershed group meeting(s).

Task V: Project Management and Administration

Butte County Dept. of Water and Resource Conservation will work with the Steering Committee and Watershed Coordinator to provide all technical and administrative services as needed for contract completion; monitor, supervise and review all work performed; and coordinate budgeting and scheduling to assure the contract is completed within budget, on schedule, and in accordance with approved procedures, applicable laws, and regulations. Ensure that the contract requirements are met through submission of regular progress reports to CALFED.

TASK		TIMELINE
I. Hire Coordinator and build formal organization		**Months 1-5**
I.1	Hire Coordinator	Months 1-2
I.2	Craft Organizational Structure	Months 3-4
I.3	Establish Steering Committee	Month 5
I.4	Develop Memorandum of Understanding, By-laws or similar document	Month 5
II. Outreach, Community Watershed Meetings, and Watershed Tours		**Months 3-21**
II.1	Outreach	Months 3-6
II.2	Community Watershed Meetings	Months 3-21
II.3	Watershed Tours	Months 6-21
III. Citizen Monitoring Initiative		**Months 5-21**
III.1	Conduct Organizational Meetings and Identify Sampling Sites	Months 4-5
III.2	Prepare Quality Assurance Project Plan	Month 6
III.3	Create Technical Advisory Committee	Month 6
III.4	Training	Months 7-8
III.5	Water Quality Monitoring	Months 8-20
III.6	Analysis and Reporting	Months 9-21
IV. Existing Data Summary		**Months 9-20**
IV.1	Gather existing studies and data	Months 9-12
IV.2	Analyze and synthesize information	Months 12-19
IV.3	Produce and distribute report, Present findings	Month 20
V. Project Management and Administration		**Months 1-21**

2. Describe your qualifications and readiness to implement the proposed project.

Watershed stakeholders have been meeting for 8 months in a process convened by the Cherokee CRMP. During this time meeting participants have learned about critical issues in their watershed, prioritized a few issues for immediate attention, and strengthened their relationships to each other. This new watershed partnership has gained important agency, university and non-governmental organization allies along the way and is now ready to establish a formal group and begin the work of assessing their watershed and developing plans for improvement and protection.

Attendance at meetings has been strong, averaging 35 people, with high levels of participation by landowners and citizens. Stakeholders have learned about each others' interests and prioritized flooding, sedimentation, and heavy metal contamination as issues that were both urgent and agreeable to all parties. Through educational presentations community members have learned more about the science of these issues and also the policies and agencies that are in place to address them. Communication between the different geographic communities of the watershed has increased and working relationships are forming. Participants are very willing to serve on committees and are enthusiastic about future citizen monitoring efforts, learning more about their watershed, and making needed improvements.

The emerging watershed group has developed relationships with many local civic groups and associations such as the Cherokee Preservation Society, Butte County Rice Growers Association, League of Women Voters, Butte Environmental Council, and others. These ties will allow the new watershed group to communicate effectively with its community. The group has also established relationships with many organizations that can provide valuable assistance and expertise in building a collaborative, stakeholder-based group and managing the watershed. These organizations include:

- Sierra Nevada Alliance: The Alliance has helped to convene and build the capacity of collaborative, stakeholder-based watershed groups in several locations in the Sierra, including the Yuba, Tuolumne, South Fork American, Mokelumne, East Walker, Carson, and Truckee River basins. The Alliance has provided its Watershed Coordinator as an interim local coordinator for the Cherokee Watershed group and will continue providing organizational, technical and grant-writing support until the new group is formalized and has hired its new Coordinator. Another resource that the Alliance provides to new watershed groups is its Watershed Council Toolkit, a guide to creating a local, collaborative, stakeholder-based watershed group.

- Bidwell Institute for Applied Environmental Research, CSU Chico: The Bidwell Institute provides technical assistance in watershed assessment, water quality monitoring and other areas to communities in Butte County and beyond. Bidwell has provided technical and organizational support to the new watershed group since its inception through multiple CSU faculty members. The Institute is currently providing similar support to a new watershed group in the Little Chico Creek drainage.

- Butte County Department of Water and Resource Conservation: BCDWRC has a broad resource stewardship mandate, including protection and improvement of watershed health and promoting local watershed organization. The Department will serve as the fiscal agent for this grant and has a proven ability to administer funds with an annual budget of $390,000 per year.

- State Water Resources Control Board Clean Water Team: Dominic Gregorio from the SWRCB Citizen Monitoring Program will provide the group with assistance in its Citizen Monitoring Initiative, bringing to bear all of the expertise of the Clean Water Team. In the past few months he has come to a meeting of the watershed group to make a presentation on Citizen Monitoring, worked with the Water Quality Committee to envision the Initiative, and provided input for this grant proposal. In the future he will assist with training of Citizen Monitors and with actual monitoring activity and sample collection in the early stages of the Initiative.

- Central Valley Regional Water Quality Control Board, Department of Water Resources, Red Bluff Office, and Sacramento River Watershed Program: CVRWQCB, DWR and SRWP representatives have participated regularly in community watershed meetings. As the Watershed Group begins its Citizen Monitoring Initiative and other activities we will be able to tap these agency personnel for assistance as needed.

Combining the expertise of these organizations with the local citizen and landowner leadership of the Cherokee CRMP has created a potent partnership with all of the skills and community linkage necessary to implement this project.

The group is well positioned to complete the tasks outlined in this proposal. Community members have demonstrated a willingness to invest time in the watershed group and can be tapped for the Formation Committee this summer. The precedent for this Formation Committee already exists within the Cherokee Watershed Group: In the winter of 2000-2001 a Proposition 13 Advisory Committee was formed to guide a proposal for those funds. This Committee consisted of a representative from each of the geographic communities of the watershed, plus a few additional interested individuals. The group possesses a complete mailing list of all the addresses in the watershed to conduct an outreach mass mailing. The Cherokee CRMP has provided a few tours of the watershed on a limited scale already. Butte College is supplying the group with a regular free meeting space right in the center of the watershed. The Water Quality Committee that will guide the Citizen Monitoring Initiative is formed and is gearing up for preliminary training in taking simple measurements and visual assessments with Dominic Gregorio. Agency and Bidwell Institute representatives that have been attending meetings will serve on the Technical Advisory Committee for the Citizen Monitoring Initiative. And two of the directors of the Cherokee CRMP have been collecting existing studies and data on the watershed for several years, compiling a substantial archive to hand over to the new Coordinator to begin analyzing and synthesizing.

The Cherokee CRMP and its partners in this project are familiar with the State Standard Terms and Conditions in the Proposal Solicitation Package Section 8 and agree to comply with these Terms and Conditions.

3. Provide a completed budget cost sheet and describe the basis for determining project costs, including comparisons with other similar projects, salary comparisons, and other listed costs. Describe how the approach to achieving the stated goals of the project demonstrates an effective cost relative to anticipated benefits.

(See Program Budget and Project Summary on next pages)

Budget Justification:

The four major cost items for this project are (1) Coordinator Labor, (2) Certified Lab costs, (3) Butte County Dept. of Water and Resource Conservation Administration and Management labor costs and (4) Coordinator office costs. These four costs can be justified as follows:

(1) Based on numerous current job announcements for Watershed Coordinators from the CA-CRMP and For the Sake of the Salmon List Servers we estimated the cost of salary and benefits for a 50% time Coordinator for 18-months to be $30,000.

(2) Dominic Gregorio (SWRCB Citizen Monitoring Program) and Dave Brown (Bidwell Institute) have estimated from past experience that the lab costs for metals sampling would run $250 per sample. With 102 total samples that adds up to $25,500, shipping not included.

(3) $15,640 is included for BCDWRC labor costs for administration and management of the project. This is essentially a 20% overhead rate on the other costs of the project.

(4) $15,000 was allotted for office costs for the Coordinator, including all supplies, equipment, an allowance for rent, phone, electricity, and other costs. The Coordinator will likely work from a home office space but may be able to share space with in one of the academic institution or public agency office complexes in Butte County. These costs were estimated from the costs of operating the Sierra Nevada Alliance office. The $15,000 represents a fraction of the Alliance office costs appropriate for 1 person working half-time for 18 months.

The remaining $7,675 requested from CALFED is for travel costs, data purchases, shipping of samples, and other non-office supply and material expenses.

Cost Benefit Justification:

The benefits of this project are high relative to the costs. For $12,285 the project will produce an Existing Information Summary for the watershed that would be far more costly if prepared by a consulting firm. The $39,700 spent by CALFED on the Citizen Monitoring Initiative will yield important preliminary information on a potential source of heavy metal contamination for the Sacramento River and Bay Delta. Though a mercury monitoring program by a public agency would be more extensive and exhaustive it would also cost a great deal more. If it is uncertain whether the Cherokee Watershed is a significant source of metal contamination then this Initiative is a low cost method to do an initial survey. The remaining costs of the project may be considered an investment in the population of the Cherokee Watershed. These people will become more aware and organized, establish new lines of communication and coordination and provide valuable public input to agencies such as the Army Corps. Building social, intellectual, and political capital in these ways will provide tremendous benefits for ecosystems and people in future policy making and resource management activities.

4. Describe the technical feasibility of the proposed project. Cite precedents, indicate whether this project fills identified data gaps, and explain how the finished project will be maintained as necessary and to what degree it may require continued funding from outside the community.

Essentially, there are three technical challenges to this project: building a collaborative, stakeholder-based watershed group; performing Citizen Monitoring for heavy metals; and compiling an existing data summary document. With CALFED Watershed Program funds the Cherokee Watershed Group can complete these tasks because participants have extensive experience with watershed management and because there are precedents, references, and expert networks that they can learn from.

Building a collaborative, stakeholder-based watershed group

Several of the participants in the Cherokee Watershed Group have participated in other watershed groups, including the Butte Creek Watershed Conservancy, the Little Chico Creek Working Group, the Big Chico Creek Watershed Coalition, and others. Some are also regular participants in the Watershed Management Council, the CALFED Watershed Work Group, the California Watershed Network, Sacramento River Watershed Program, the Butte County Shedheads and other networks of expertise. Consequently, community members in the Cherokee Watershed have a strong understanding of the collaborative, watershed approach and what makes it work. These individuals understand the potential of a watershed group and are invested in this process. A few participants plan to attend the Stewardship Watershed Management Training offered by the Sacramento River Watershed Program in Placerville in April-May 2001. Support from the Sierra Nevada Alliance will also help to build this group. The Alliance has extensive experience supporting the development of new collaborative watershed groups and is providing its Watershed Coordinator and its Watershed Council Toolkit to the new group.

Citizen Monitoring for Heavy Metals

The Group will rely heavily on the expertise of Dominic Gregorio (SWRCB Clean Water Team) to design and implement the Citizen Monitoring Initiative. Gregorio believes it is very feasible for citizens to collect water samples for heavy metal testing by a certified lab using rigorous protocols. The Santa Monica Baykeepers have performed this kind of Citizen Monitoring for metals and produced quality data. The Technical Advisory Committee will also participate in monitoring program design and will revise the program if necessary throughout the year. Gregorio and representatives from the Bidwell Institute will help to train the citizens and assist them in their first attempts at collecting samples. In later months, the Watershed Coordinator will work with citizens to ensure consistency of methods and quality of data. Citizen motivation is high. Local residents are going to attend the Wild on Watersheds training for Citizen Monitors in Red Bluff in May 2001.

This task will help to fill an important data gap. Both the U.S. Geological Survey and the Sacramento River Watershed Program have monitoring programs that attempt to locate and track mercury in the Sacramento River watershed. Although there was a large scale hydraulic mine in the Cherokee Watershed there have been no serious attempts to determine whether there is mercury contamination there. A Citizen Monitoring effort can provide initial data that may

indicate the need for more substantial monitoring efforts by USGS, SRWP or some other entity. In addition, this project will improve overall understanding of mercury persistence and mobility in stream systems without dams.

Existing Data Summary

The new Watershed Coordinator will be given primary responsibility for compiling the Summary and will be allocated 350 work hours for the task. Numerous references on watershed assessment and planning can guide this effort. These include the California Coastal Conservancy's Watershed Planning Guide, the Oregon Watershed Enhancement Board's Watershed Assessment Manual, and the Federal Guide for Watershed Analysis titled "Ecosystem Analysis at the Watershed Scale." The Coordinator will be able to consult with other Coordinators on compiling an existing information report through the Butte County Shedheads and can also tap into the other networks of expertise mentioned above.

Assessment information can become obsolete in a matter of years. When the Watershed Group takes its existing information summary to the next step of a full assessment it will attempt to digitize as much of the information as possible in a GIS database for ease of updating.

The more that this watershed process meets the needs of stakeholders, the greater the momentum it will build. Though little support from outside the community will be needed to maintain the group and its educational and dialogue activities, the group will likely wish to pursue additional assessment, planning, and implementation activities. These actions may require additional outside funding. If so, the Steering Committee will identify funding needs and work with the Coordinator to seek additional resources.

5. Describe how the monitoring component of the project will help determine the effectiveness of project implementation and assist the project proponent and CALFED with adaptive management processes. Describe citizen monitoring program, protocols to be used, and how this project will support other local and regional monitoring programs. Describe how the type and manner of data collection and analysis will be useful for informing local decision making. Identify performance measures appropriate for the stated goals and objectives of the project.

Citizen monitoring program

The Citizen Monitoring Initiative is described in detail in Question 1. Citizen Monitors will collect surface water, ground water, and benthic stream bottom samples for one year to investigate the presence and extent of heavy metal contamination in the middle portion of the watershed downstream from the Cherokee Mine. To ensure rigorous sampling protocols the monitors will be trained by Dominic Gregorio of the SWRCB Clean Water Team and will operate under a Quality Assurance Program Plan modeled after the SWRCB Citizen Monitoring QAPP. The Watershed Coordinator will collect samples with citizens throughout the year to ensure consistency of methods and adherence to the EPA and SWRCB protocols taught by Dominic Gregorio. Additional parameters such as DO, pH, TDS, TSS and temperature will be collected simultaneously to provide context for the samples. Samples will be sent to a certified lab that can test for mercury, arsenic and other metals with low detection levels. A Technical Advisory Committee, consisting of representatives of the Bidwell Institute, RWQCB, and other organizations, will help design the monitoring approach, examine the data, and modify monitoring practices as needed.

This monitoring program will complement the efforts of the U.S. Geological Survey and the Sacramento River Watershed Program to locate and track mercury in the Sacramento River Watershed. The Cherokee Watershed is one of many watersheds where large scale hydraulic gold mining activities, using substantial amounts of mercury, occurred in the 19th century. Neither the USGS or SRWP has done monitoring for mercury in this particular tributary to the Sacramento system.

This monitoring initiative will provide timely and valuable information to local and regional decision making. In the past year Butte County has been presented with numerous proposals for activities that will disturb soils and stream sediments within the stream corridor and flood plain of Dry Creek and Sawmill Ravine. Determining whether mercury or other toxic substances are present within this zone will help the County decide on appropriate locations for soil and stream channel disturbing activities. This monitoring program will also provide information to interested landowners

about the safety of their drinking water and might indicate other public health concerns such as fish consumption issues. At the regional scale, this monitoring program could indicate whether small tributary watersheds that have experienced hydraulic mining might be significant contributors of mercury to the Sacramento River system.

Performance measures by Task

The Cherokee Watershed Group will provide the following Task deliverables to CALFED to document accomplishments and learning:

Task I: Hire Coordinator and Build Formal Organization
- Resume of new Coordinator
- Summary of criteria used by Formation Committee for selection of Coordinator
- Copy of press release to local newspapers announcing new Steering Committee members and the mission of the group
- Copy of Formal Organizational Document: Memorandum of Understanding, By-laws or whatever format the group selects

Task II: Outreach, Community Watershed Meetings, and Watershed Tours
- Copy of outreach mass mailing and list of addresses it was sent to
- Copies of press releases and meeting and tour flyers
- Copies of meeting agendas and programs for watershed tours
- Meeting notes, including reports on attendance
- Copies of post-event questionnaires and summaries of feedback

Task III: Citizen Monitoring Initiative
- Copy of monitoring plan including map of sites, timeline, and description of protocols
- Quality Assurance Program Plan
- Copy of Coordinators log of monitoring activity chronicling dates, monitors, sites, and types of data or samples collected
- Final Report naming Citizen Monitors, explaining monitoring plan and sites, describing protocols used, and summarizing and analyzing the data set. If monitoring plans are revised by the Technical Advisory Committee justifications for those changes will be reported.
- Final Presentation, summarized in meeting notes

Task IV: Existing Data Summary
- Copy of existing information report, – including sources used, compiled information, identified data gaps, recommendations for further assessment
- Copy of distribution list for CD ROMs and hardcopies
- Final Presentation, summarized in meeting notes

Task V: Project Management and Administration
- Contract with CALFED
- Expenditure Accounting
- Quarterly Progress Report and Final Report
- Final Summary Presentation to CALFED

Adaptive Management

The Steering Committee, Citizen Monitoring Initiative Technical Advisory Committee, and Coordinator will provide continual review of Group activity for effectiveness. The Coordinator and these review bodies will evaluate the work performed under this grant and identify ways to achieve goals more effectively, exercising their best judgement. Quarterly reports will provide regular opportunities for this review to take place. Formal evaluation procedures such as post-event questionnaires will improve the evaluation and adjustment process.

7. How will the proposal address multiple CALFED objectives in an integrated fashion, with emphasis on water supply reliability, water quality, ecosystem quality, and levee stability objectives CALFED has established for Stage 1 of the program? Explain how the proposal will help define and illustrate relationships between watershed processes (including human elements), watershed management, and the primary goals and objectives of the CALFED Program.

This project will strengthen local stewardship of a watershed that is important to CALFED both because of its proximity to the Bay Delta and because of its important role in recharging groundwater in the Butte Basin, an area that CALFED has identified as a potential source of supplementary water for other parts of the state. A grant from the CALFED Watershed Program will build the capacity of the Cherokee Watershed Group to improve water quality, ecosystem quality, and flood security both locally and in the Bay Delta system. The assessment and educational activities supported by this proposal will also help to maintain the groundwater recharge function of the Cherokee Watershed, thus protecting water supply reliability.

Both the Bay Delta and the local community are threatened by sedimentation, flooding, and heavy metal contamination that derive from historic hydraulic and hard rock gold mining in the Cherokee Watershed. This watershed feeds into Butte Creek just above the confluence with the Sacramento River, roughly 100 miles upstream from the Bay Delta. While it operated, the hydraulic mine in the town of Cherokee removed 2 cubic miles of material from the side of Sugarloaf Mountain and used large quantities of mercury in sluice boxes to separate out gold.

Today, massive deposits of unstable hydraulic mining debris reside in the watershed downstream of the mine site. These deposits contribute large amounts of sediment to the Sacramento River system during major storm events. A handful of individual assays have shown that soils and groundwater in the middle portion of the Cherokee watershed are contaminated with arsenic and mercury. The group suspects that these toxic substances may also reside in mobile sediments in the stream system below the mine site. If so, the Cherokee watershed may be contributing these materials to the Sacramento River and the Bay Delta. In many Sierra watersheds that have experienced hydraulic gold mining there are dams that capture mercury and sediments upstream of the Sacramento river. There are no such dams between the Cherokee mine site and the Bay Delta.

When mine sediments are transported to the lower portion of the watershed they fill the Cherokee Canal, reducing conveyance and increasing flood risk. Since substantial amounts of agricultural chemicals and fertilizers are stored in the 100 year floodplain in the lower Cherokee Watershed, continued high flood potential in this area poses an additional major threat to the Bay Delta. Local residents who are already concerned about flood threats to human safety and property become even more committed to addressing flood issues when they hear about these risks to the Sacramento River system. Solutions to the flooding problem may result in improved water storage potential in and timing of flows from the Cherokee Watershed. This will enhance levee stability downstream.

Building the capacity of the Cherokee Watershed Group will advance CALFED objectives in a number of ways. A collaborative, stakeholder-based watershed group can build understanding and concern about problems in the watershed and will help stakeholders develop a shared sense of issues and possible solutions. By building awareness and concern and by promoting dialogue the Group will also build local support for watershed management activities. Meetings will also provide a venue to increase awareness about the CALFED program and build support for CALFED. A formal organization with an established collaborative process will be able to assess, plan, and implement improvements in the watershed, drawing needed technical expertise to problems and seeking grants for important projects. The Group will investigate the presence and extent of heavy metal contamination in the watershed through its Citizen Monitoring Initiative. This project will also produce a compilation of all existing data and studies, indicating further assessment needs and laying the foundation for plans and improvements. These watershed management activities will yield direct benefits to the Bay Delta downstream.

The Cherokee Watershed group will strengthen the work of public agencies by linking them more directly to local citizens. For example, the U.S. Army Corps of Engineers is currently developing a restoration strategy to address sedimentation and flooding in the watershed under an 1135 Ecosystem Restoration grant. The Cherokee Watershed Group can provide a needed forum for public participation in this planning process. Cherokee Watershed meetings can be an important opportunity for the Corps to incorporate local knowledge and concerns into their planning and for the community to keep abreast of the project design as it unfolds.

Because local watershed groups take a holistic approach to whole, geographically bounded systems they are a natural place to integrate natural resource objectives. Seeing that protection of Giant Garter Snake habitat would be an important consideration in addressing flooding along the Canal, the Cherokee Watershed Group invited an expert from the U.S. Fish and Wildlife Service to give a presentation about Endangered Species protection and canal management possibilities. If Citizen Monitoring efforts indicate that there is mercury in creek sediments downstream from the Cherokee Mine, the Group will integrate this consideration into efforts to manage sediment and flooding as well.

This project illustrates how local, stakeholder-driven watershed management initiatives can advance the objectives of CALFED. By raising awareness and concern, increasing communication among stakeholders, creating a formal collaborative organization, performing citizen monitoring, compiling existing data inventory, and integrating efforts to manage the watershed, the Group can improve conditions both locally and in the Bay Delta 100 miles downstream.

7C. Identify a Lead Agency for environmental compliance, such as CEQA or NEPA.

Because this project causes minimal disturbance to resource systems the Cherokee Watershed Group expects to be granted a Categorical Exemption under CEQA. We have discussed our project with Chuck Vogelsang of CALFED and he believes that our proposed work may not qualify as a "project" in the CEQA guidelines. The Department of Water Resources will be our Lead Agency and we will investigate our CEQA requirements further. Chuck Vogelsang suggested that the appropriate Categorical Exemption for us to seek would be the Class 4 "Minor Alterations" Exemption in Section 15.304.

Environmental Information Form

Successful applicants are responsible for complying with all applicable laws and regulations for their projects, including the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA

NEPA/CEQA

Any necessary NEPA or CEQA documents for an approved project must tier from the CALFED Programmatic EIS/EIR. Approved projects must incorporate mitigation strategies listed in Appendix A of the CALFED Programmatic Record of Decision to avoid or minimize the projects adverse environmental impacts. Applicants are encouraged to review the Programmatic EIS/EIR and incorporate the applicable mitigation strategies from Appendix A of the Programmatic Record of Decision in developing their projects and the NEPA/CEQA documents for their projects.

1. **Will this project require compliance with CEQA, NEPA, or both? Yes__X__No_____**

2. **If you checked no to question 1, please explain why compliance is not required for the actions in this proposal>**

3. **If the project will require CEQA and/or NEPA compliance, identify the lead agency(ies).**

   CEQA Lead Agency____Department of Water Resources (DWR) _____

   NEPA Lead Agency_____

4. **Please check which type of document will be prepared.**

CEQA		NEPA	
Categorical Exemption	__X__	Categorical Exclusion	_____
Initial Study	_____	Environmental Assessment/FONSI	_____
EIR	_____	EIS	_____

5. **If you anticipate relying on either or both the Categorical Exemption or Categorical Exclusion for this project, please specifically identify the exemption and/or exclusion that covers this project. (Example: Fish and Wildlife Service Manual at 516 DM 6 Appendix 1.4 Categorical Exclusions Section B Resources Management: (1) Research, inventory, and information collection activities directly related to the conservation of fish and wildlife resources.)**

   Class 4 Categorical Exemption "Minor Alterations …" in Section 15.304 of CEQA Guidelines

6. **If the CEQA/NEPA process is not complete, please describe the estimated timelines for the process and the expected date of completion.**

   We anticipate applying for the Categorical Exclusion in October 2001

7. **If the CEQA/NEPA document has been completed:**

   What is the name of the document?_____

Please attach a copy of the CEQA/NEPA document to the application.

Environmental Permitting and Approvals

Successful applicants must tier their project's permitting from the CALFED Record of Decision and attachments providing programmatic guidance on complying with the state and federal endangered species acts, the Coastal Zone Management Act, and sections 404 and 401 of the Clean Water Act. The CALFED Program will provide assistance with project permitting through its newly established permit clearing house.

Please indicate what permits or other approvals may be required for the activities contained in your proposal and which have already been obtained. Please check all that apply.

LOCAL PERMITS AND APPROVALS	Needed?	Obtained?
Conditional use permit		
Variance		
Subdivision Map Act		
Grading permit		
General plan amendment		
Specific plan approval		
Rezone		
Williamson Act Contract cancellation		
Other		
STATE PERMITS AND APPROVALS	Needed?	Obtained?
Scientific collecting permit		
CESA compliance: 2081		
CESA compliance: NCCP		
1601/03		
CWA 401 certification		
Coastal development permit		
Reclamation Board approval		
Notification of DPC or BCDC		
Other		
FEDERAL PERMITS AND APPROVALS	Needed?	Obtained?
ESA compliance Section 7 consultation		
ESA compliance Section 10 permit		
Rivers and Harbors Act		
CWA 404		
Other		

PERMISSION TO ACCESS PROPERTY		
Permission to access city, county or other local agency land. If yes, indicate the name of the agency:_____		
Permission to access state land. If yes, indicate the name of the agency: _____		
Permission to access federal land. If yes, indicate the name of the agency: _____		
Permission to access private land. If yes, indicate the name of the agency: _____****_____		

**** **Citizen Monitoring of surface waters will be conducted from public bridges. Sampling of private wells under the Citizen Monitoring program will be conducted by the landowners themselves with the assistance of the Watershed Coordinator, SWRCB personnel, or Bidwell Institute representatives. Because landowners will be collecting the samples themselves on their own properties the Watershed Group will not need access permissions. If some form of documentation is requested by the CALFED program the Watershed Group can and will provide requested documentation.**

CALFED BAY-DELTA PROGRAM
PROPOSAL SOLICITATION PACKAGE
LAND USE CHECKLIST

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. *Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.*

1) Do the actions in the proposal involve physical changes in the land use? No

a) If you answered yes to # 1, describe what actions will occur on the land involved in the proposal?

b) If you answered no to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only).

This proposal will involve outreach and education, organization building, Citizen Monitoring, and information gathering and synthesis.

2) How many acres of land will be subject to a land use change under the proposal? ___0___

3) What is the current land use of the area subject to a land use change under the proposal? What is the current zoning and general plan designation(s) for the property? Does the current land use involve agricultural production?

a) Current land use _____
b) Current zoning _____
c) Current general plan designation _____
d) Does current use involve agricultural production? YES NO

4) Is the land subject to a land use change in the proposal currently under a Williamson Act contract? YES NO

5) What is the proposed land use of the area subject to a land use change under the proposal?

6) Will the applicant acquire any land under the proposal, either in fee or through a conservation easement? YES NO

a) If you answered yes to # 6, describe the number of acres that will be acquired and whether the acquisition will be of fee title or a conservation easement:

b) Total number of acres to be acquired under proposal _____
c) Number of acres to be acquired in fee _____
d) Number of acres to be subject to conservation easement _____

7) For all lands subject to a land use change under the proposal, describe what entity or organization will manage the property and provide operations and maintenance services.

8) Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal? No

Citizen Monitoring of surface waters will be conducted from public bridges. Sampling of private wells under the Citizen Monitoring program will be conducted by the landowners themselves with the assistance of the Watershed Coordinator, SWRCB personnel, or Bidwell Institute representatives. Because landowners will be collecting the samples themselves on their own properties the Watershed Group will not need access permissions. If some form of documentation is requested by the CALFED program the Watershed Group can and will provide requested documentation.

a) If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific sites have not been identified will be required to provide access needs and permission for access within 30 days of notification of approval.

9) For land acquisitions (fee title or easements), will existing water rights be acquired? Yes No

10) Does the applicant propose any modifications to the water right or change in the delivery of the water? Yes No

a) If yes to #10, please describe the modifications or changes.

COPY OF NOTIFICATION LETTER – SEE DISTRIBUTION LIST, NEXT PAGE

Cherokee Watershed Group
c/o Butte County Dept. of Water and Resource Conservation
2279 Del Oro Avenue, Suite A
Oroville, CA 95965-3396

April 5, 2001

Dear _____,

The Cherokee Watershed Group is submitting a grant proposal to the CALFED Watershed Program to build the capacity of the Group. Specifically, we are requesting funds from CALFED to conduct a Citizen Monitoring program, compile an Existing Data summary, perform watershed outreach and education, and build a formal, broad-based, collaborative stakeholder watershed organization.

With this letter we would like to notify you of the project and request your feedback in a formal letter which can be submitted to CALFED with our proposal on April 27.

The Cherokee Watershed Group is an informal collection of local landowners, public agencies, and other interested parties that was initiated by the Cherokee Coordinated Resource Management and Planning group (CRMP) in September 2000. Ultimately, the group hopes to collaboratively scope and prioritize stakeholder concerns, perform watershed assessments and ongoing monitoring, develop a watershed plan, and implement stewardship activities.

The Cherokee Watershed is 95 square miles and encompasses the communities of Paradise, Cherokee, Butte Valley, Cherokee Strip, and Richvale. Communities downstream of Richvale are welcome to participate but have not attended meetings thus far. Some of the top concerns that have arisen in stakeholder meetings to date are high levels of sedimentation, flooding, and possible heavy metal contamination of groundwater. These problems can all be traced back to hydraulic mining in the 19th century.

I am enclosing a copy of our initial concept proposal that outlines our project. When the final proposal is completed I will send you a copy of that as well. Please review our project and provide a response letter as soon as possible. We would like to assemble our packet for submittal to CALFED by April 23. If you have any questions about the Watershed Group or this project please contact me. My phone number and e-mail address are (530) 542-4546 and sierran3@sierra.net. Thank you!

Sincerely,

Phil Chang, Interim Coordinator
Cherokee Watershed Group

Notification Letters were sent to the following entities:

Butte County Board of Supervisors and Department of Water and Resource Conservation
Attn: Curt Josiassen
2279 Del Oro Avenue, Suite A
Oroville, CA 95965-3396

Town of Paradise
Attn: Town Council and Town Manager Rough
5555 Skyway
Paradise, CA 95969

Town of Paradise Onsite Wastewater Management Zone
Attn: Lloyd Hedenland
5555 Skyway
Paradise, CA 95969

Western Canal Water District
Attn: Ted Trimble
PO Box 190
Richvale, CA 95974

Richvale Irrigation District
Attn: Troy Kellet
PO Boix 128
Richvale,CA 95974

Task Description	Labor Rate	Hours	Total Labor	Supplies	Travel	Materials	Sub-Contract	Match	CALFED Total
T1: Hire Coordinator, Organize	18.3	150	2730	1615	625	200		1000	5170	6170
T2: Outreach, Meetings, Tours	18.3	425	7790	4795	700	1000			14285	14285
T3: Citizen Monitoring**	18.3 / *12*	475 / *378*	8690 / *4540*	3710		1000	26300	4540	39700	44240
T4: Existing Data Summary	18.3	350	6390	4000		1895			12285	12285
T5: Administration and Mgmt.***	18.3 / *30*	240 / *521*	4380 / *15640*	2005		350			22375	22375
Totals:										$99,355

*Benefit Salary Percentage explanation:

Labor Rate for Watershed Coordinator is $18.3/ hour with a 14% benefit salary percentage

Labor Rate for Butte County Dept. of Water and Resource Conservation personnel is $30/ hour with a 25% benefit salary percentage

**In-kind Citizen Monitor labor rate, hours and total labor cost is listed in italics after Watershed Coordinator labor figures

***BCDWRC labor rate, hours, and total labor cost is listed in italics after Watershed Coordinator labor figures

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II

	Task Description	Completion date	Match funds	CALFED funds	Total
Task I:	Hire Coordinator and Build Formal Organization:	Month 5	$1,000	$5,170	$6,170
Task I.1:	*Develop position announcement, publicize, collect resumes and letters,interviews, hire new coordinator*				
Task I.2:	*Facilitate meetings to craft mission statement, examine available models, choose structure*				
Task I.3:	*Establish Steering Committee*				
Task I.4:	*Develop organizational document (MOU, By-laws, or other) and ratify*				
	Task Product(s): Coordinator resume, summary of selection criteria, press release announcing Group Mission and Steering Committee, Formal organizational document				
	Success Criteria: Able Coordinator hired, representative Steering Committee created, organizational structure approved by group and codified in formal document				
Task II:	Tours	Month 21	$0	$14,285	$14,285
Task II.1:	*Prepare and send outreach mass mailing; give watershed speeches at community meetings; publicize meetings and tours through press and flyers*				
Task II.2:	*Schedule and execute 8 Community Watershed Meetings*				
Task II.3:	*Organize and lead two tours of the watershed*				

Task Product(s): Outreach mass mailing, press releases, announcement flyers, meeting agendas, tour programs, meeting notes, post-event feedback questionnaires and summaries

Success Criteria: Good participation; improved awareness, communication and coordination; effective organization

Task III:	Citizen Monitoring Initiative	Month 21	$4,540	$39,700	$44,240
Task III.1:	*Conduct Organizational Meetings to Recruit Volunteers, Plan Initiative, and Identify sampling sites*				
Task III.2:	*Prepare Quality Assurance Project Plan*				
Task III.3:	*Assemble Technical Advisory Committee*				
Task III.4:	*Train Citizen Monitors*				
Task III.5:	*Collect samples and other contextual data, send samples to certified lab*				
Task III.6:	*Data analysis, write final report, final presentation*				

Task Product(s): Monitoring Plan, Quality Assurance Program Plan, Coordinators monitoring log, Final Report, Final Presentation

Success Criteria: Citizen participation and learning; improved understanding of the presence and extent of heavy metal contamination in the watershed

Task IV:	Existing Data Summary	Month 20	$0	$12,285	$12,285
Task IV.1:	*Assemble/purchase existing data and studies*				
Task IV.2:	*Analyze and synthesize information, draft and revise Summary report*				
Task IV.3:	*Produce and distribute report (hardcopy, CD-ROM), final presentation*				

Task Product(s): Existing Information Summary Report and distribution list, final presentation

Success Criteria: A comprehensive, user-friendly compilation of information that prepares the group for further assessment

Task V:	Project Management, Administration and Reporting	Month 21	$0	$22,375	$22,375
Task V.1:	*Monitor, supervise and review all work performed*				
Task V.2:	*Budget management and record keeping*				
Task V.3:	*Quarterly progress reports: Progress reports on project implementation, including financial status, milestones reached, products completed, and general assessment of overall progress, including problems encountered or anticipated.*				
Task V.4:	*Final report: Draft report summarizing the project implementation, achievements, product deliveries and financial status will be sent to the Contract Manager for review and comment. Final report will incorporate comments from the Contract Manager and others.*				
Task V.5:	*Final Presentation: Deliver final summary presentation to CALFED.*				

Task Product(s): Contract with CALFED, Quarterly Progress Report, Final Report, Final Presentation to CALFED, Full project accounting

Success Criteria: Smooth project execution; full accountability; good communication of project implementation, achievements, product deliveries and financial status